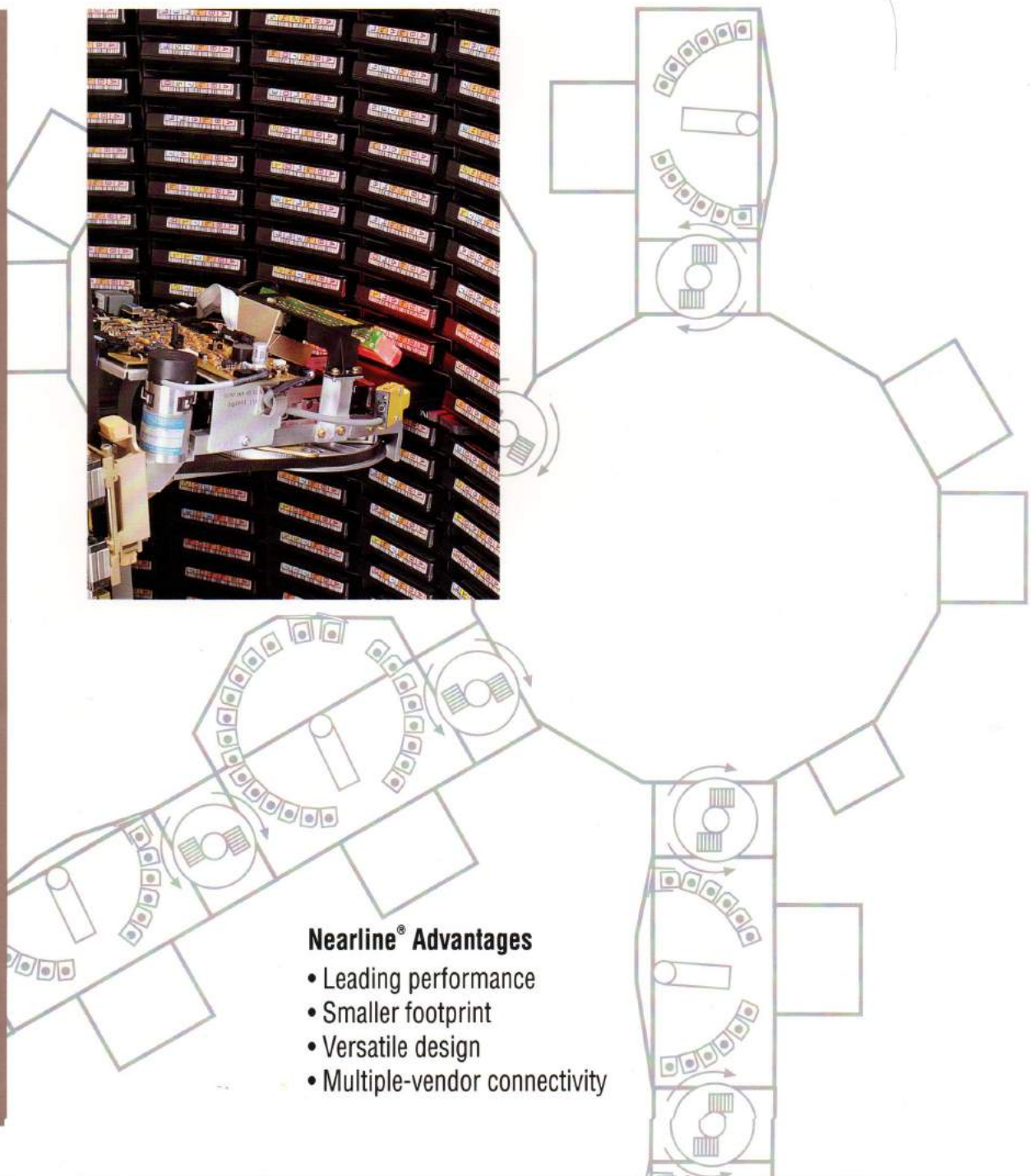




# StorageTek®

## TIMBERWOLF™ & WOLFCREEK™



### Nearline® Advantages

- Leading performance
- Smaller footprint
- Versatile design
- Multiple-vendor connectivity



## OVERVIEW

The TimberWolf and WolfCreek Automated Cartridge Systems from Storage Technology Corporation are smaller-capacity, higher-performance libraries that offer full Nearline functionality in multiple computing environments.

TimberWolf stores approximately 500 cartridges and supports a maximum of four transports. WolfCreek stores approximately 1,000 cartridges and supports a maximum of eight transports. Because of their smaller size, both systems can be shipped pre-assembled from the factory for immediate installation. In addition, a TimberWolf system can be readily transformed into a higher-capacity WolfCreek system with an upgrade performed on location.

## LEADING PERFORMANCE

Because of advances in robotic design and the smaller area of rotation, TimberWolf and WolfCreek are the highest-speed automated cartridge systems available. Each system operates at a market entry performance level of 350 cartridge exchanges — defined as a mount and dismount of a single cartridge — per hour with future performance enhancements planned. This high robotic performance level is essential

for providing a balance with increases in media density and tape device characteristics.

## SMALL, FAST AND VERSATILE

TimberWolf and WolfCreek Automated Cartridge Systems are extremely versatile and well suited for many environments. For example, they are ideal for smaller companies, smaller sites of large companies, remote sites, or any environment requiring smaller increments of automated storage granularity. Because of their high performance, TimberWolf and WolfCreek are ideal for storing high-performance cartridge sets such as report management and high-performance recall. Additionally, they offer a lower-capacity entry point into Nearline automation, allowing you to begin your automation strategy with a smaller investment. When attached to the larger libraries, TimberWolf and WolfCreek provide an excellent solution for high-performance applications.

## FLEXIBLE CONNECTIVITY

As with all Nearline systems, TimberWolf and WolfCreek are designed to attach to any other current and future StorageTek library including the 4400, ExtendedStore™ and PowderHorn™ Libraries. In addition, TimberWolf and WolfCreek will attach to all current and future StorageTek cartridge drives. This connectability is essential for pass-thru operations —

an advantage unique to StorageTek. If all cartridge drives are busy, the robot may pass a cartridge from one library to another, into the nearest available transport. With pass-thru capability there is little delay in a cartridge mount even during peak data retrieval intervals. Additionally, pass-thru operation is instrumental for high-performance applications because it allows TimberWolf and WolfCreek to boost the performance of the larger libraries.

## MULTIPLE-VENDOR COMPATIBILITY

TimberWolf and WolfCreek are also designed with a separation of the control path and data path to allow attachment to multiple host processing environments. This includes attachment to over 15 IBM and non-IBM vendor platforms.

## A COMPACT CARTRIDGE ACCESS PORT

The Cartridge Access Port (CAP) for the TimberWolf and WolfCreek libraries houses 20 cartridges standard with an additional 30-cartridge capacity available for WolfCreek. The standard 20-cartridge CAP contains two magazines, each containing 10 cartridges. In addition, a Priority Cartridge Access Port is incorporated for the priority enter and eject of a single cartridge.



*The TimberWolf and WolfCreek Automated Cartridge Systems complement the Nearline family as smaller versions of full-function libraries. With smaller capacity, higher performance and lower storage costs, TimberWolf and WolfCreek provide a versatile Nearline solution for all customers.*

#### **TIMBERWOLF & WOLFCREEK FEATURES**

**Smaller, full-function library design**

**Circular, hexagon shape**

**High-speed robotics**

**Field upgradable**

**Data and control path separation**

**High-performance cartridge sets**

**Attachment to all Nearline libraries and cartridge drives**

**Compatibility with IBM and many non-IBM processors**

**Fully integrated automation management software**

#### **NEARLINE BENEFITS**

- Introduces full Nearline functionality to customers with smaller granularity needs.
- Provides unique performance options to larger customers.
- Allows implementation of Nearline with a smaller investment.
- Requires less floorspace than any other automated cartridge system.
- Facilitates connectivity and pass-thru operations from one library to another.
- Delivers significantly improved Nearline storage price/performance.
- Balances increases in media density and tape device characteristics with higher robotic performance.
- Incorporates reliability enhancements for extended product life.
- Allows a seamless progression from TimberWolf to WolfCreek for increased cartridge capacity.
- Assures protection of your storage investment.
- Allows manual access to data in the event the control path goes down.
- Provides flexibility to attach libraries in multi-vendor and network-based computing environments.
- Provides needed service time when you must have fast access to data.
- Balances cost and performance through an attachment of larger libraries to high-performance TimberWolf and WolfCreek systems.
- Permits an intermixing of automated libraries and cartridge drives with varying performance and capacity options.
- Allows you to customize a configuration to best meet your needs over time.
- Supports mixed-media technologies.
- Provides unmatched price/performance value in automated cartridge storage.
- Conforms readily to a multi-vendor computing environment.
- Supports your current applications and host processor investment.
- Manages your unique automation environment through various client/server and contents management applications.
- Allows you to implement library automation simply and customize with maximum flexibility.
- Operates on different platforms and through your network.



## SPECIFICATIONS

### LIBRARY STORAGE MODULE (LSM)

Operations	50Hz/60Hz			
Dimensions	Height	Length	Width	Weight
TimberWolf	72.0 in. (183 cm.)	60.0 in. (152.4 cm.)	32.0 in. w/o covers (81.3 cm) 38.5 in. w covers (97.8 cm.)	<50 lb/sq.ft (max)
WolfCreek	72.0 in. (183 cm.)	60.0 in. (152.4 cm.)	53.5 in. w/o covers (136 cm.) 60.0 in. w covers (152.4 cm)	<50 lb/sq.ft (max)
Electronics Module-LCU	72.0 in. (183 cm.)	20.0 in. (50.8 cm.)	32.0 in. w/o covers (81.3 cm) 33.0 in. w covers (83.8 cm)	<50 lb/sq.ft (max)

### OPERATING SYSTEMS SUPPORTED BY HOST AND CLIENT SOFTWARE

Amdahl/UTS	ICL/VME
Bull/GCOS8 and GCOS7	Pyramid/dual PORT OSx
Control Data/NOS,	Siemens/BS2000
NOS/VE	Sun Micro/Solaris
Convex/Convex OS	Unisys/OS1100
Cray Research/ UNICOS/COS	
DEC/VMS/Ultrex	
Fujitsu/MSP	
IBM/AIX	
IBM MVS/370/XA™/ESA™	
IBM VM/SP/XA™/HPO/ESA	

### ENVIRONMENTAL SPECIFICATIONS

	Operating	Storage	Shipping
Temperature	60 to 90° F (16 to 32° C)	40 to 90° F (4.4 to 32° C)	-23 to +120° F (-10 to +48° C)
Humidity	20% to 80%	10% to 90%	5% to 100%
Wet Bulb	+78° F	+80° F	+80° F
Maximum (noncondensing)	(+25.6° C)	(+26.7° C)	(+26.7° C)
Altitude	-250 to +10,000 ft. (-76.2 meters to 3,050 meters)		

### POWER SPECIFICATIONS

Line Voltages	180 - 264 V
Single-Phase	50/60 Hz, 3 wire
Power Consumption*	0.9 KW 1.2kVA
Line Current*	<6A
Line Frequencies*	Between 47 and 63 Hz
Heat Output*	3100 Btu/hr (781 kCAL/hr)
Power Connectors	IEC 309
	Mach. Hubbell 320 P6W
	Cust. Hubbell 320 R6W
Nominal	200 - 240 V

\* These are operating values.

### CONFIGURATIONS, CAPACITIES AND PERFORMANCE

Hosts per LMU (max)	16
LSMs per LMU (max)	16
Cartridges per LSM	
TimberWolf	~500
WolfCreek	~1,000
Cartridge Drives per LSM	
TimberWolf	1
WolfCreek	1 or 2
Transports per LSM	
TimberWolf	2 minimum 4 maximum
WolfCreek	2 minimum 8 maximum
Cartridge Access Port (CAP)	
TimberWolf	20 cartridges
	1 Priority Cartridge Access Port (PCAP)
WolfCreek	20 cartridges standard
	30 cartridges optional
	1 Priority Cartridge Access Port (PCAP)
Exchanges per Hour*	Market entry level of 350

\*One robotic mount and dismount.

### CARTRIDGE STORAGE SPECIFICATION

Format	IBM 3480/3490/3490E-compatible
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## StorageTek

Innovation in storage

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